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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,826	10/23/2003	Naoki Iwabuchi	031203	5425
23850	7590	06/24/2005	EXAMINER	
ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP			ROSS, DANA	
1725 K STREET, NW			ART UNIT	
SUITE 1000			PAPER NUMBER	
WASHINGTON, DC 20006			3722	

DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SA

Office Action Summary	Application No.		Applicant(s)	
	10/690,826		IWABUCHI ET AL	
	Examiner		Art Unit	
	Dana Ross		3722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11 and 12 is/are rejected.
- 7) ☒ Claim(s) 9 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some* c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 10/23/03.
- 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 2 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 2, lines 4-5, it is not clear what is being claimed by the phrase "...able to direct upwardly and positioned and..."

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 07237077A (Kume, hereafter JP '077).

Since JP '077 is in the Japanese language, a computer generated translation is provided. In the event Applicant disagrees with Examiner's interpretation of the translation, Applicant is required to provide a translation and explain the areas of disagreement.

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JP '077 teaches a numerically controlled vertical machining center with spindle head 9 and gripper 11 for gripping a workpiece 1; vertical stocker 4; table 8 located below the spindle head and movable in three mutually transverse directions (see fig. 5, for example and paragraphs 0009, 0019, 0021 and 0034, for example).

JP '077 teaches the table 8 movable in three mutually transverse directions and the spindle head movable in one direction, but does not disclose the vertical machining center spindle head movable in three mutually transverse axes.

Examiner notes that it is well known in the art to have the spindle move in three mutually transverse directions as is evidenced by US Pat. No. 6,313,259 (Stark et al.). At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to modify JP '077 such that the spindle head moved in three directions because applicant has not disclosed that having the spindle head moved in three directions provides an advantage or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with the workpiece table movable in three directions because the machining process in both JP '077 and Applicant's invention machine a workpiece in three mutually transverse directions.

Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the spindle head movable in three mutually transverse directions and the table movable in one direction, since it has been held that a mere reversal of essential working parts of a device involves only routine skill in the art.

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5. Claims 1-7, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 07237077A (Kume, hereafter JP '077) in view of US Pat. No. 6,313,259 (Stark et al., hereafter '259).

JP '077 teaches a numerically controlled vertical machining center with spindle head 9 and gripper 11 for gripping a workpiece 1; vertical stocker 4 with a plurality of workpieces 1; table 8 located below the spindle head and movable in three mutually transverse directions (see fig. 5, for example and paragraphs 0009, 0019, 0021 and 0034, for example).

JP '077 teaches the table 8 movable in three mutually transverse directions and the spindle head movable in one direction, but does not disclose the vertical machining center spindle head movable in three mutually transverse axes. JP '077 does not teach the table swingable and at least rotatable by a table drive unit.

'259 teaches a spindle head movable in at least three mutually transverse directions and a table 20 having a chuck swingable and rotatable for both milling and turning machining (see col. 2, lines 22-36 and 59-66 and col. 3, lines 5-8, for example).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the vertical machining center spindle head and table as taught by JP '077 such that the spindle head moved in three mutually transverse directions and the table was swingable and rotatable as taught by '259 for the purpose of achieving the same high degree of precision with all the working operations which are carried out by tools secured to the spindle, irrespective of the angle defined between the spindle axis and the clamping axis (see '259, col. 1, lines 50-62, for example).

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6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 07237077A (Kume, hereafter JP '077) in view of US Pat. No. 6,313,259 (Stark et al., hereafter '259) and in further view of US Pat. No. 6,394,716 (Huber et al., hereafter '716).

JP '077 in view of '259 teaches all aspects of claim 7 as discussed in the above rejections.

JP '077 teaches the stocker body with an index drive and swivel portion (see fig. 1).

JP '077 does not disclose the stocker sleeves arranged to be directed upwardly in parallel with the swivel axis.

'716 teaches it is well known in the art to have a stocker with an index drive and swivel portion with the sleeves directed upwardly in parallel with the swivel axis (see fig. 4, col. 3, lines 42-51, for example).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the vertical machining center as taught by JP '077 to include the indexable swivel stocker as taught by '716 for the purpose of reducing the distance traveled by the gripper and for providing sensors to permit automatic engagement of the workpiece with the tool when the index table is rotated to the machining position for greater accuracy in the machining process (see col. 3, lines 42-51, for example).

Allowable Subject Matter

7. Claims 9 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dana Ross whose telephone number is 571-272-4480. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on 571-272-4419. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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